



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549-4631

August 6, 2013

Via E-Mail

Mr. Alain J. Castro  
Chief Executive Officer and Director  
Ener-Core, Inc.  
9400 Toledo Way  
Irvine, CA 92618

**Re: Ener-Core, Inc.**  
**Current Report on Form 8-K**  
**Filed July 10, 2013**  
**File No. 333-173040**

Dear Mr. Castro:

We have reviewed your filing and have the comments below. In some of our comments, we may ask you to provide us information so that we may better understand your disclosure.

Please respond to this letter within 10 business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe that our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

General

1. Please advise whether you qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act. We note in particular that a Form S-1 filed by Inventtech, Inc. was declared effective on November 28, 2011, but it is unclear whether any sales of equity securities were made pursuant to this registration statement on or before December 8, 2011. Please advise. To the extent you qualify as an emerging growth company, please revise your Form 8-K accordingly. See Question 24 of the Jumpstart Our Business Startups Act Frequently Asked Questions.

Entry into a Material Definitive Agreement, page 2

2. Disclose that you were a shell company before the merger transaction. See Rule 12b-2 under the Exchange Act.

Completion of Acquisition or Disposition of Assets, page 2

3. Please delete the reference to “Form 10-SB” as this form is no longer in use and smaller reporting companies must use the same forms as other SEC reporting companies.

Description of Business, page 2

4. Disclose the specific factual basis for and the context of all your beliefs, estimates, and opinions. Note that you must have a reasonable basis for all projections, statistics, and assertions, or they should be removed from the filing. If you relied on a third party source for the information, disclose whether the source is publicly available, represents the most recently available data, and remains reliable. To expedite our review, please provide us copies of each source, marked clearly to highlight the portion or section that contains the information, and cross reference it to the appropriate location in the Form 8-K.
5. To the extent material, please disclose the name(s) of any principal suppliers. Please also disclose whether you have entered into an agreement with any supplier, and, if so, tell us what consideration you have given to filing any agreement with a supplier as an exhibit to the Form 8-K. See Item 101(h)(4)(v) and Item 601(b)(10) of Regulation S-K.

Our Technology, page 4

6. We note your reference to testing and verification of your technology as part of a U.S. Department of Defense demonstration program. Please clearly state whether you commissioned this testing. Please also explain the relationship, if any, of this testing to the contract you entered into with Southern Research Institute regarding the installation of an oxidizer demonstration unit and Flex power stations, as discussed on page 24. We note on page nine you state that you were a “subcontractor” to Southern Research Institute. Please disclose your relationship to SRI and clarify the involvement of the DoD in the testing and verification.

Sales, Marketing and Distribution, page 7

7. We note your reference to a conditional purchase order from EECT Turbomachinery. Please

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disclose whether this is your only sale of the FP250 to date, and clarify whether the purchase order is binding. Please also disclose, to the extent material, the number of units covered by the purchase order and the pricing for the units. Please tell us what consideration you have given to filing the purchase order as an exhibit to the Form 8-K. See Item 601(b)(10) of Regulation S-K.

Research and Development, page 8

8. Disclose the amount spent during each of the last two fiscal years on research and development activities, and, if applicable, the extent to which the cost of the activities is borne directly by customers. See Item 101(h)(4)(x) of Regulation S-K.

Current and Future Efforts, page 10

9. We note that you are currently in “joint-development” with Dresser-Rand on the KG2-3GO. Please disclose whether you have entered into a joint-development agreement or similar agreement with Dresser-Rand, and file any such agreements as an exhibit to the registration statement. Please also disclose any material terms of such agreements. Finally, please revise your disclosure on page three under “Our Products” to clarify that the KG2-3GO is part of a joint development project with Dresser-Rand.

Intellectual Property Protection, page 10

10. To the extent material, disclose the duration or term of the two patents that you have been granted. See Item 101(h)(4)(vii) of Regulation S-K.

Government Regulation, page 10

11. To the extent material, discuss the costs and effects of compliance with environmental laws. See Item 101(h)(4)(xi) of Regulation S-K.

Our future is dependent upon our ability to obtain additional financing..., page 12

12. Disclose the known or estimated amount of additional financing that you will require to proceed with the manufacture and distribution of your products.

A Note About Forward-Looking Statements, page 21

13. Revise the disclosure to clarify whether you are eligible to rely on the safe harbor provision of the Private Litigation Reform Act of 1995 for forward looking statements. See Section

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21E of the Exchange Act. Please provide us your analysis supporting your position.  
Liquidity and Capital Resources, page 31

14. Please revise this section to include a reasonably detailed discussion of your ability or inability to produce sufficient cash to support operations during the 12 month period after the date of the financial statements included in the Form 8-K.

Contractual Obligations, page 32

15. We note your statement that you have “presented below” a summary of the most significant assumptions used in your determination of amounts presented in the tables. We are unable to locate these assumptions and tables. Please advise and revise accordingly.

Related Party Transactions, page 32

16. We note your reference to Note 12 and Note 5 in your financial statements. These cross references appear to be incorrect. Please revise accordingly. Please also confirm that you have provided the disclosure required by Item 404(d) of Regulation S-K for any transaction with related persons since the beginning of your last fiscal year, or any currently proposed transaction, in which the amount involved exceeds one percent of the average of your total assets at year end for the last two completed fiscal years. We note that the relevant disclosure in your financial statements only covers the period after December 31, 2012. Please make similar revisions to your disclosure on page 39, or, in the alternative, delete the duplicative disclosure.
17. If applicable, provide disclosure relating to any promoter as required by Item 404(c) of Regulation S-K.

Description of Property, page 33

18. We note the disclosure that you have assumed one third of all liabilities under the lease agreement between FlexEnergy, Inc. and Meehan Holdings, LLC for your current facility. Please file the lease agreement and the agreement evidencing your assumption of one third of all liabilities under the lease agreement as exhibits to the Form 8-K, or tell us why you do not believe that you are required to do so. See Items 102 and 601(b)(10) of Regulation S-K.

Directors and Executive Officers, page 35

19. For each director or person nominated or chosen to become a director, discuss briefly the specific experience, qualifications, attributes, or skills that led to the conclusion that the

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person should serve as a director at the time that the disclosure is made in light of the company's business and structure. See Item 401(e)(1) of Regulation S-K.

Executive Compensation, page 37

20. Revise your disclosure to provide a narrative description of any material factors necessary to understand the information disclosed in the summary compensation table, including the material terms of each option award. See Item 402(o)(4) of Regulation S-K.
21. Please provide the disclosure required by Item 402(p) of Regulation S-K.

Unregistered Sales of Equity Securities, page 42

22. State the value of the 45,692,103 shares of common stock issued by Ener-Core, Inc. to the holders of the common stock of Ener-Core Power, Inc. in exchange for their shares of common stock of Ener-Core Power, Inc. See Item 701(c) of Regulation S-K.
23. Please include all securities sold by you within the past three years which were not registered under the Securities Act. We note, for example, your issuance of notes to various stockholders, as referenced in your financial statements. See Item 701 of Regulation S-K.

Report of Independent Registered Public Accounting Firm, page F-3

24. We note from your Item 4.01 disclosure that you engaged Kelly & Company as your auditors on July 1, 2013. We further note that the audit opinion included in your filing covering all periods presented is dated July 8, 2013. Please clarify for us if Kelly & Company was also the auditor of the predecessor, FlexEnergy.

Exhibit 10.1

25. Other than their captions, it appears that you did not file the schedules to Exhibit 10.1. Unlike Item 601(b)(2) of Regulation S-K, there is no provision in Item 601(b)(10) of Regulation S-K for omitting schedules. Please refile exhibit 10.1 with its schedules.

Exhibit 21.1

26. Disclose the state or other jurisdiction of incorporation or organization of your subsidiary. See Item 601(b)(21)(i) of Regulation S-K.

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Closing

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures that they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- The company is responsible for the adequacy and accuracy of the disclosure in the filings;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- The company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may direct questions on accounting comments to Kevin W. Stertzel, Staff Accountant, at (202) 551-3723 or W. John Cash, Accounting Branch Chief, at (202) 551-3768. You may direct questions on other comments and disclosure issues to Edward M. Kelly, Senior Counsel, at 202-551-3728 or Erin K. Jaskot, Staff Attorney, at (202) 551-3442.

Sincerely,

/s/ Erin K. Jaskot, *for*

Pamela A. Long  
Assistant Director